

# Universal Unique Identity (UUID)

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**Abstract:** Universal Unique Identity (UUID) for every human and non-human entity on the Earth is the crucial issue for the time being. Universal Unique Identity (UUID) means assigning numeric identity number to every human (live-born baby or greater), each house/shop/vehicle/institute/organization/farm/company and other like entities within countries and international organizations/bodies from now/floating date. It is Universal Unique Identity (UUID), because this ID will be unique across the world. It is envisaged for peace and security of the mankind, simplifying complicated public systems within country and in the international arena, to expedite building global village and increasing cultural, economic, business relation and amity with trust among peoples beyond the border. This will bring discipline in human life in the world. It will substantially reduce militancy and other minor or major criminal incidents. In this system I recommend to keep an entity profile against each entity of the country in a government Database. And this Database will facilitate native and foreign peoples manifold. Other than State-sponsored Cyber Attack all types of Web Anarchy could be prevented. Without Encryption, Digital Signature and IC based Public Physically Unclonable Function (PPUF) peoples in the world could utilize Information and Communication Resources. They won't have tense of Server Hack, Web-Site Hack, Phishing, Data Integrity, Information Spoofing, Network Jamming, Virus-Program, Impersonating etc. It will reduce data processing and transfer time.

**Keywords:** Citizen identity, cyber security, network security, data integrity, digital certificate, financial security, information security, secure communication, security system, unique identity, universal unique identity, uid, uri, url, uuid.

## Introduction

We, peoples in the world are reeling under security threats like snatching, smuggling, stealing, piracy, account hack, web-site hack, mail tempering, spoofing, eavesdropping, phishing, skimming, spamming, money misappropriation, pilferage, money laundering, fake ID/passport, illegal VOIP, SIM/RUIM cloning, human trafficking, house/bank robbery/theft, militancy, terrorism etc. Present system of Social Security Number or Citizen Identity could not give expected solution to these security problems. Invention, government policy, international security policy could not provide secure world. Anti-spy software, anti-virus software, digital certificate, ethical hacker, ICT Police, Tech-Intelligence nothing could provide cyber security. At present we use National Identity card, Smart Identity card, SIM/RUIM for mobile connection, electronic handset, Database and Datacenters. Using only these resources applying my 'Universal Unique Identity (UUID)' system in a new strategy with government and international administrative reformed rule we could get a 98% secure world. In this paper I depict all technical and administrative tactics of this new system. I used here sixteen digit numerical ID number without any special character or letter. Even before Dooms-day it won't need to change/increase the number.

## UUID

### Definition

Each Country/State in the world will have an identity number of three digits starting with 000, which will be termed as 'Country Code'.

Every human (every live-born baby or greater aged human) will have an identity number. This is Human IDENTITY (HID) number. This HID number will be unique in the world, an UUID. In the country who attains citizenship, his ID will be called Citizen IDENTITY (CID) number. HID includes CIDs.

The HID will be a person's mobile phone number, finance/bank account number, property owner ID, insurance number, software/application user\_id, IP address, email address, URI/URL, investor ID, member ID in any organization/cooperative, facebook/twitter ID, in a word, it is his tether to the world.

Similarly for each institute/organization/house/shop/vehicle/industry/farm/company/bank/insurance/cooperative/enterprise/server/government agency/department entity will be assigned a Universal Unique Identity (UUID) number too.

United Nations will hold Information and Communication ID number for itself in Country Code series. This could be 000.

World Information and Communication Agency (WICA) will keep some ID numbers for international organizations, multinational commercial companies, international bodies or institutes in United Nation's serial.

All movable entities will always have Location Tracking System with.

Each place less/equal one square kilometer except Sea/Desert/Forest in the world will have an ID# which will be used to discover the place through Internet / Global Positioning System (GPS) / other systems. If needs, to be able to track location of an entity it will help us. In this respect we could make it mandatory for mobile communication device manufacturer to install location tracking device without alternative option in hardware/software in all communication machines/devices and we could set an international standard for this.

Among all types of Entities only HID and Server ID numbers will hold Communication facilities.

ID numbers of entities such as house/shop/vehicle/institute/organization/cooperative/farm/factory/industry/

company/bank/insurance/government offices won't get interactive communication facility.

Without UUID none will get communication facility on this Earth.

## Infrastructure

International Telecommunication Union (ITU), an organ of United Nations to be reformed as World Information and Communication Agency (WICA) and it will remain under United Nations. It will control world-wide information and communication affairs among countries. It will hold some Datacenters and infrastructures to be used to maintain world-wide communication and to resolve conflict among countries. There will have only one information and communication channel within each country and in international arena as well as between entities. The only channel/medium for information and communication is the Internet in the world. Through Internet (wired/wireless) phone-call/voice-chat, video-chat, message/email, file/document transfer, radio/television live streaming anything will be done. There will have no hardware/software for NFC(Near Field Communication), Bluetooth, Intercom, short distance wireless/cable connection, telephone/radio/television tower/base station, dish antenna, communication using Infrared Ray or LASER, Web Impersonating or IP Address Hiding Systems - these are all would be banned (this rule could be relaxed for research labs, defense services and other exceptional entities). Under ICT Ministry, there will have an 'ICT Profile' of Each entity in a country. This will keep records of ICT Resources usage history of the entities. As well as records of all abuses of ICT Resources by them. All communication between two ID# will go through the Internet and will be recorded all succinct info in 'ICT Profile' Database. Storing life history of each entity will be easy.

## Assigning ID#

An ID number for a human is 9992824539090 (suppose).

His HID / UUID is 8809992824539090. Here, 880 is Country Code of a certain country. If there are network connection of more than one operator/carrier company, then his phone/mobile # is 88099928245390901745 or 88099928245390901567 and so on. Here, 1745/1567 are last four digits of Operator/Carrier ID in that country (if the State provides Internet Service, then operator/carrier code doesn't need). And the HID will be his only email address, web address, Facebook/Twitter ID, user ID, employee ID, investor ID, owner ID, member ID etc. ID numbers from 4,010,835,010,149 to 9,999,999,999,999 will be allocated for HID number assigning in a country.

For ID number for shops numbers from 4,005,835,010,149 to 4,010,835,010,149 will be assigned. Country Code will precede the shop ID number. Then the ID# will be as 8804005996783432.

For ID number for company/enterprises numbers from 4,004,335,010,149 to 4,005,835,010,149 will be assigned. Country Code will precede the company ID number. Then the ID# will be as 8804004362784350.

For ID number for farms numbers from 3,999,335,010,149 to 4,004,335,010,149 will be assigned. Country Code will precede the farm ID number. Then the ID# will be as 8804000398227843.

For ID number for education institutions numbers from 3,997,835,010,149 to 3,999,335,010,149 will be assigned. Country Code will precede the institute ID number. Then the ID# will be as 8803998595679998.

For ID number for factories numbers from 3,997,735,010,149 to 3,997,835,010,149 will be assigned. Country Code will precede the factory ID number. Then the ID# will be as 8803997831969997.

For ID number for banks numbers from 3,997,725,010,149 to 3,997,735,010,149 will be assigned. Country Code will precede the bank ID number. Then the ID# will be as 8803997730969997.

For ID number for insurances numbers from 3,997,715,010,149 to 3,997,725,010,149 will be assigned. Country Code will precede the insurance ID number. Then the ID# will be as 8803997723959929.

*Bank/insurance account # of an entity:* Account number will be composed as the UUID number followed by serial number of accounts of the entity in that bank/insurance followed by last four digits of the bank's/insurance's ID#. This account # would be like 880999282453909019997.

For ID number for cooperatives numbers from 3,997,665,010,149 to 3,997,715,010,149 will be assigned. Country Code will precede the cooperative ID number. Then the ID# will be as 8803997711699976.

For ID number for organizations numbers from 3,997,635,010,149 to 3,997,665,010,149 will be assigned. Country Code will precede the organization ID number. Then the ID# will be as 8803997645959943.

For ID number for industries numbers from 3,997,615,010,149 to 3,997,635,010,149 will be assigned. Country Code will precede the industry ID number. Then the ID# will be as 8803997634629956.

For ID number for forces numbers from 3,997,614,010,149 to 3,997,615,010,149 will be assigned. Country Code will precede the force ID number. Then the ID# will be as 8803997615009134.

For ID number for parliament numbers from 3,997,614,010,099 to 3,997,614,010,149 will be assigned. Country Code will precede the parliament ID number. Then the ID# will be as 8803997614010100.

For ID number for secretariats numbers from 3,997,613,910,099 to 3,997,614,010,099 will be assigned. Country Code will precede the secretariat ID number. Then the ID# will be as 8803997613998979.

For ID number for ministries numbers from 3,997,613,900,099 to 3,997,613,910,099 will be assigned. Country Code will precede the ministry ID number. Then the ID# will be as 8803997613909349.

For ID number for prime ministry numbers from 3,997,613,899,999 to 3,997,613,900,099 will be assigned. Country Code will precede the prime ministry ID number. Then the ID# will be as 8803997613900050.

For ID number for presidency numbers from 3,997,613,899,949 to 3,997,613,899,999 will be assigned. Country Code will

precede the presidency ID number. Then the ID# will be as 8803997613899953.

For ID number for land plots, roads, lanes, high lands, mountains, forests, water-bodies, seas and deserts numbers from 3,847,613,899,949 to 3,997,613,899,949 will be assigned. Country Code will precede this ID number. Then the ID# will be as 8803847613899949.

For ID number for apartments, suits, huts and houses numbers from 3,747,613,899,949 to 3,847,613,899,949 will be assigned. Country Code will precede this ID number. Then the ID# will be like 8803750833899949.

For ID number for vehicles numbers from 3,627,613,899,949 to 3,747,613,899,949 will be assigned. Country Code will precede this ID number. Then the ID# will be like 8803662613899949.

For ID number for Hosting Computer Servers numbers from 3,627,013,899,949 to 3,627,613,899,949 will be assigned. Country Code will precede this ID number. Then the ID# will be like 8803627016899949.

These ID numbers are perpetual and never be changed. Never be assigned to other.

## Space and Astronomer

As long as other planet in the space is not found naturally livable for human without any dependency on Earth, we need not add extra code in UUID for Galaxy-Star-Planet. When it needs, may add 0-0-00 ~ 0000. 0000 will be added before 16 digits UUID. Then the UUID will be of 20 digits.

Astronauts who stay away from Earth at Space Station, Space Shuttle or on a planet surface will be controlled and managed by the Astronomical Organization or Company with which he works. The organization/company will record all aspect history of an astronomer as long as he is with it whether on Earth or in Space. When he completes his job in the organization/company and return to his homeland, it will handover him and his history to his country authority.

## Usage

With the HID the entity's profile will be stored in his country 'Entity Profile' Database. This information will be accessible by all concerned authorities in country as well as international entities. If the person obtains international port/border passing permission by his country Govt., it will be written in his profile book by authorized Govt. office. In his profile book, his physical feature, job/profession time line, family, relatives, financial status, movable/immovable property description, crime and sentence report will be embedded too. This citizen Database will also be stored/updated in two more Datacenters in different places in different file format for safety. In case of international communication, each communication info will be stored/updated in two different level Datacenters in different places in different formats by WICA. This profile would be then his official deed. But specific office would get access right to assigned page/s only as fixed by his country authority in the profile book. So he need not carry hard passport, identity card, driving license card etc.

Against Shop ID# in Database full history of the shop like, owner info, operator info, shop type, shop license, VAT, tax description, location, products names, daily transaction data, monthly/yearly report all are stored.

Against Company/Enterprise ID# article of memorandum, managerial board info, shareholders info, business type, business area, business partners info, daily/monthly/yearly transaction/financial report, location, license, VAT, tax info etc are recorded in Database.

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Against Vehicle ID# owner info, driver/renter info, vehicle type, vehicle category, technical specification, license, usages, area of run, insurance info, purchase info, repair/maintenance cost, income info are recorded in Database. It's ID# will be inscribed in its body/engine/chassis.

## Anomaly Punishment

If anybody commits anomaly/irregularity/crime using Information and Communication Channel for first crime he/she will be tried under usual criminal code. For second crime, punishment is as before (as warning his ID could be suspended for 10 days). If anybody commits anomaly for third time, he/she will be punished as first anomaly as well as his/her Information and Communication ID number will be terminated forever. Here exchanging with or lending UUID to other entity is also such a crime.

## Advantages

This system will provide us tremendous strength to trace entity/criminal. It will help us to fight menace of rebellion, hacking, piracy, snatching, corruption, irregularities, cyber threats and communication/internet related all crimes. The UUID will exactly be used as software/application user\_id, IP address, e-mail address and mobile phone number. So it will facilitate us for user authentication in software/web application, data protection, network security, cloud storage security and secure online money transaction or e-banking. IoT (Internet of Things) will be more reliable as proxying or IP address hiding for hacking won't be possible. States in the world may get rid of militancy and revolt. If someone commits crime using Information and Communication Channel and his HID# is suspended/terminated, then he can no longer communicate using ICT resources and almost all of his public/daily activities will be paralyzed in lack of UUID, which ruins his earthly life! So, in the State none can dare to commit crime! Moreover it will reduce hassles and complexity of legal procedures and activities in public life. Aftermath we could get a more peaceful world.

## Logical Steps

United Nations (UN) to call world convention to fix following things:

1. Country Code.

2. Time-frame to accomplish assignment of Universal Unique Identity (UUID) numbers in the countries.
3. Time-frame to setup internal Datacenters in the countries.
4. Reforming http, ftp, www and other information and communication protocols for secure adoption of new system.
5. Setup in-country information and communication infrastructure and regulations reforming deadline.
6. A time-line and strategy for making entity profile Databases in each country.

### **Conclusion**

In current course of time, it needs an up-gradation of administrative structure to keep up with the will of the people. The Universal Unique Identity (UUID) system is such an upgrading model. This system will establish equal rights of each entity in the state and internationally. The goal of this system is security, peace and easy communication. It will bring highest discipline among the entities. It will make daily life more comfortable and easy. It would also contribute to the human rights maintaining. I hope, it will expedite peace and economic growth throughout the world.